# NSF POSTDOCTORAL FELLOWSHIPS IN SCIENCE, MATHEMATICS, ENGINEERING AND TECHNOLOGY EDUCATION (PFSMETE)

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Guidelines for Submission of Applications FY 1998 Announcement

DIRECTORATE FOR EDUCATION AND HUMAN RESOURCES NSF-POSTDOCTORAL FELLOWSHIPS IN SCIENCE, MATHEMATICS, ENGINEERING AND TECHNOLOGY EDUCATION (PFSMETE)

**DEADLINE FOR SUBMISSION OF APPLICATIONS: January 15, 1998** 



## POSTDOCTORAL FELLOWSHIPS IN SCIENCE, MATHEMATICS, ENGINEERING AND TECHNOLOGY EDUCATION (PFSMETE) GUIDELINES FOR SUBMISSION OF PROPOSALS

The National Science Foundation (NSF) recognizes that Ph.D. graduates in science, mathematics, engineering and technology (SMET) must help the Nation in addressing challenging issues in education across a broad spectrum of institutions and educational levels. NSF anticipates that in the future, these graduates will assume leadership roles in contributing to the Nation's education enterprise. Academic and educational institutions will benefit from contributions of professionals who will have a thorough understanding of topics in education such as how scientific knowledge can be communicated to diverse learners in a variety of settings, how teaching and learning can be assessed, how new disciplinary knowledge can be used in curriculum development, how technology can be used to advance the teaching of SMET education, and how best to carry out complex program evaluation of educational systems.

As a means of preparing individuals with these skills, the Foundation announces the continuation of the Postdoctoral Fellowships in Science. Mathematics. Engineering and Technology Education (PFSMETE). The Foundation hopes to approximately 20, two-year support PFSMETE fellowships in FY 1998. This program is aimed at recent Ph.D. graduates in science, mathematics or engineering and seeks to draw broadly on the diversity of talent available in the U.S. population.

#### PROGRAM OBJECTIVES

The primary objectives of the program are:

- to prepare Ph.D. graduates in science, mathematics, engineering and technology with the necessary skills to assume *leadership roles* in SMET education in our Nation's diverse educational institutions, and
- to provide opportunities for outstanding Ph.D. graduates to *develop expertise* in a facet of science education research that would qualify them for the new range of educational positions that will come with the 21<sup>st</sup> century.

#### **ELIGIBILITY**

To be eligible for a PFSMETE fellowship, individuals must: 1) be citizens, nationals, or permanent residents of the United States at the time of application; and 2) have received a doctoral degree (Ph.D. or equivalent) in one of the SMET fields supported by NSF on or after January 1, 1995 but no later than October 1, 1998. Because this program is intended to broaden the skills of Ph.D. graduates in SMET disciplines, individuals who hold SMET education degrees are not eligible for this program.

### PLAN OF STUDY AND/OR RESEARCH

PFSMETE Fellows have flexibility in the design of a research plan which would be uniquely suited to their professional interests. Disciplinary research that is integral to and supportive of the science education plan may be part of this plan. However, it is expected that the principal focus of the Fellows' time will be spent on research that can contribute significantly to augment the knowledge base in some area

of science, mathematics, engineering or technology (SMET) education, or on projects that result in the development of new tools or materials that improve teaching and learning in SMET disciplines, rather than using the fellowship as a simple extension of their Ph.D. work. Research in interdisciplinary fields is highly encouraged. It is also desirable that PFSMETE Fellows spend time developing new sets of skills that will prepare them for future positions with strong emphasis in education. SMET education research may be in a broad range of critical areas across education levels (i.e., K-12, undergraduate, graduate) and may include, but is not limited to:

- Disciplinary knowledge may be used to conduct research on how people learn; how cognition is affected by learning styles; how students acquire facts, concepts and skills; how to apply cognitive principles to facilitate effective learning; and what kinds of learning tasks are best suited to different kinds of students.
- Knowledge transfer / Curriculum development. Projects may be centered on how SMET content can be communicated to different learners (e.g., different ages, diverse cultural backgrounds, various learning styles) and how cognitive processes can be used to design course curriculum.
- Uses of technology as teaching and learning tools. Research may be how focused on advanced technologies can be used in teaching and learning the changing content of taking into account the SMET, different ways people think, learn and solve problems. The outcome of this kind of research may be of immediate use and application in assisting teachers with the use of computers, newly developed software and other

technologies in the classroom. Research can also be conducted on the development of materials and tools that significantly improve the teaching and learning of SMET or on the development of intelligent systems that may be useful in all facets of education, including informal and self-directed learning.

Student assessment/Program evaluation. Emphasis may be placed on investigating various approaches to measuring student achievement or assessing the impact and effectiveness of education projects or large-scale programs. Studies on the relationship between assessment and instructional practices may also be conducted. Other topics may include development of strategies and tools for evaluating student performance.

PFSMETE awards may not be used primarily for the preparation of a textbook. Limited undergraduate teaching may be conducted. It is expected that the host institution provide will additional compensation to the Fellows for such activities (see below under Conditions). Consistent with postdoctoral fellowship programs, PFSMETE Fellows will work under the guidance of one or more principal advisors during fellowship tenure, functioning as their SMET mentors. The mentors' names and qualifications should be included in the application, with evidence of their willingness to serve in such a capacity. It is important that each mentor's knowledge and experience in SMET education (e.g. areas listed above) be described in the proposal.

#### LOCATION OF WORK

PFSMETE Fellowships will be awarded for research or study at academic institutions that offer a baccalaureate, master's or doctoral degree in a field supported by NSF. PFSMETE Fellows may also work in an institution where major science education projects are currently being developed, disseminated or evaluated. Because of the nature of the program, PFSMETE Fellows are encouraged to establish collaborative arrangements with other institutions to conduct their activities (e.g. community colleges, technical or vocational institutions, K-12 schools, nonprofit institutions, museums). Applicants will be required to submit with their application acceptable evidence of support by their chosen institutions (see section "Application Procedures", Item 7). Applicants may apply to remain at the same institution where they conducted their Ph.D. In this case, applicants must clearly justify their reasons for not going elsewhere. The program highly encourages applicants to move to another institution for their postdoctoral work. evaluation and selection process will take into account the appropriateness of the institution for the proposed work.

#### STIPENDS AND ALLOWANCES

The stipend for PFSMETE Fellowships will be \$3,000 per month. In addition, the Foundation will provide a research allowance to the Fellow of \$500 per month to be used at the discretion of the Fellow for scientific or educational supplies, special travel, publication costs and other research-related expenses. The Foundation will also provide an institutional allowance of \$750 per month of fellowship tenure to aid in defraying the costs of hosting the Although this allowance is Fellow. expendable at the discretion of the Foundation institution. the strongly encourages that an appropriate portion of this allowance be used to provide health insurance and similar benefits for the Fellows.

#### **FELLOWSHIP DURATION**

PFSMETE Fellowships will be given for a total of 24 months. A recipient of a PFSMETE Fellowship may begin his or her fellowship no later than the beginning of the 1998-1999 academic year.

At the successful conclusion of the fellowship activities and contingent upon the availability of funds, the Foundation will consider an extension of support for an additional 12 months. The extension may be in the form of another 12 months of continued fellowship support, or a starter research grant not to exceed \$50,000 to enable the Fellow to initiate an appropriate research program. The latter option would be appropriate for Fellows who have secured a position in an organization in which the knowledge and experience obtained during the PFSMETE fellowship can be applied. The formal proposal for a starter research grant will originate from the employing organization. Funds under such a grant may not be used for the academic-year salary of the Fellow. Further information about the format of a starter research grant proposal will be communicated to Fellows electing that option at a later date. In any case, a recommendation for a third year of support will be made after an internal review based on progress to date and/or the proposed use of the time and funds involved.

#### APPLICATION PROCEDURES

The PFSMETE application consists of 6 complete sets of the application materials (signed original, plus 5 copies), 1 copy of the Supplementary Nominee Information (NSF Form 1225B) attached to the original application only, and 3 reference letters. Applications should be typewritten (single space text). Type should be no smaller than 10-point font size. Margins may not be smaller than 2.5 cm, except where margins are established on forms. DO NOT send reprints, pre-prints, theses, budgets and/or any materials not specifically requested in

this announcement. Failure to comply with application procedures will disqualify an application from eligibility for merit review. Photocopying of the application forms is permitted and individuals who post this notice are encouraged to share application material included with this notice.

The applicant's name and the heading of each section listed below should appear at the top of each page. Each set of a PFSMETE application should be stapled and ordered as follows:

### 1. PFSMETE cover sheet (NSF- Form 1383)

### 2. Abstract of Doctoral Dissertation (Limit: 1 page)

This page should include a brief description of the doctoral dissertation research.

### 3. Abstract of Proposed Plan of Study and/or Research (Limit: 1 page)

This page should include a brief description of the study and/or research plan to be conducted during the period of the fellowship.

### 4. Proposed Plan of Study and/or Research (Limit: 3 pages)

This section should describe in detail the study and/or research plan to be undertaken during the time of the fellowship and the approaches that will be followed to accomplish it. It should include a description of the career goals of the applicant with respect to research and science education with comments about how the proposed plan will enhance the applicant's potential to pursue a career with a strong science education component. If known, a statement about the state of science learning in the applicant's field should be included. The applicant should comment on the reasons for selecting the institution(s) and mentor(s).

### 5. Curriculum Vitae (Limit: 3 pages)

This section should include the applicant's name; current position; educational background, including dates of conferred degrees; professional accomplishments, including employment history in reverse chronological order; honors; awards; a list of publications; mentoring activities; current and pending grant support; and other relevant information related to the PFSMETE fellowship.

### 6. Mentor's Statement (Limit: 2 pages per mentor)

A SIGNED statement from the mentor(s) indicating how the applicant's plan will fit into the mentor's program and what role the mentor will play in assisting the applicant in accomplishing the PFSMETE objectives. A brief biographical sketch including the mentor's experience and specific activities conducted in science education should also be included. The mentor(s) name and position should be clearly stated.

### 7. Institutional Support (Limit: 1 page per institution)

A statement of support from the institution(s) where the applicant expects to conduct his/her activities should be included with the application. A brief description of the status of the Fellow within the institution and opportunities available to him/her should also be included. Any financial commitment or additional support for the applicant from the fellowship institution should be described. This statement MUST be signed by a Department Chair, Dean or an Administrative Official who can represent the institution and honor its financial commitments.

#### 8. Reference Letters

Three reference letters are required, including one from the thesis advisor if possible. It is important to send referees a copy of the proposed study and/or research plan for their review and comments. Letters should be addressed to the NSF PFSMETE Review Committee specifically address at least one of the standard NSF review criteria (Grant Proposal Guide, NSF 98-2) and one of the additional criteria listed under the section "Evaluation and Selection." One original letter and 5 copies all in the same envelope must be collected from each referee by the applicant. Letters should be sent to the applicant in sealed envelopes. Applicants should instruct their referees to mark both sides of the envelope "TO BE OPENED ONLY BY NSF." The envelopes should be addressed to:

NSF- PFSMETE Program C/O Name of Applicant Applicant's address City, State Zip Code

Envelopes should include the Referee's Name, Street Address, City, State, and Zip Code on the upper left hand corner.

Before signing the letters, referees should indicate if they want to hold their comments in confidence and not to reveal their identity as authors of the letters. Otherwise, the Foundation may provide the comments to the applicants (if requested) under the Privacy Act of 1974.

All letters of reference in sealed envelopes should be included in the application package. References that are sent to NSF separately from the application material will be omitted from the review process.

### 9. Certification of Completion of the Ph.D. Degree (NSF Form 1405 A)

Proof of Ph.D. completion should be provided by submitting an OFFICIAL, SIGNED Certification of Completion of the Ph.D. degree with 5 copies. If the applicant has completed his/her degree by the application deadline, the signed certification should be attached to the ORIGINAL Application. Otherwise, it should be submitted before the Fellowship starts.

### SUBMISSION OF ELECTRONIC APPLICATIONS

With Internet access and a supported World Wide Web browser, an applicant can submit an application electronically using the NSF FastLane Postdoctoral Research Fellowship process. referees of applicants who use FastLane must submit a Reference Report Form using FastLane. Security is provided to ensure that both applications and references can be seen only by authorized NSF Postdoctoral persons. The Research Fellowship process is on the NSF FastLane Home Page, which is located at the following URL: http://www.fastlane.nsf.gov/

To access the NSF FastLane Postdoctoral Research Fellowship Programs process and instructions on its use, click on the appropriate icon on the FastLane Home Page. Additional questions may be directed to Ms. Beverly Sherman at (703) 306-1145, ext. 4615 or via e-mail at felapp@nsf.gov.

Warning! You can submit your application electronically in its entirety ONLY IF you, your sponsoring scientist, and your referees have the appropriate software (e.g. Adobe Acrobat 3.0) to

create PDF files. Otherwise, you must submit your application in hard copy. Application forms for hard copy submission may be obtained from the printed Guidelines (NSF 97-166), by printing them off the World Wide Web, or as a byproduct of FastLane. In the latter case, application forms can be filled out using FastLane procedures, and then printed for hard copy submission. Faxed submissions are not acceptable.

A COMPLETE application must be submitted via FastLane or in hard copy by the published deadline. Electronic and hard copies of applications cannot be combined for submission.

### DEADLINE FOR SUBMISSION OF APPLICATIONS

All application submissions must be postmarked by January 15, 1998. All sets of materials, forms and reference letters should be submitted as a single unit in a large envelope and addressed:

NSF- PFSMETE Program National Science Foundation, Suite 907N 4201 Wilson Blvd. Arlington, VA 22230

Awards are expected to be announced in early summer, 1998.

#### **EVALUATION AND SELECTION**

Panels of SMET experts including science educators will evaluate PFSMETE proposals. Disciplinary Program Directors at NSF will be invited to the panel meeting to observe the PFSMETE review and selection process. In addition to the new NSF evaluation criteria described in the *Grant Proposal Guide* (NSF 98-2), Section III A, the following criteria will be taken into account:

- 1. Potential for the proposed plan of study and/or research to achieve the objectives of the PFSMETE program and potential for contributing to SMET education knowledge.
- 2. Potential for successful completion of the proposed research by the applicant and continued contributions in the SMET field.
- 3. Credentials of the mentor(s) for guiding the research and assisting with the professional development of the applicant.
- 4. Appropriateness of the institutional setting for carrying out the proposed plan of and/or research.

PFSMETE Fellows will be selected by the National Science Foundation on merit and will be based primarily on the advice of the external panel using the Foundation's review criteria and the additional factors cited above.

#### CONDITIONS OF APPOINTMENT

PFSMETE Fellows will be required to devote full time to the plan proposed in the application. Fellowships will start upon request by the Fellow after acceptance of an award offer, but normally no later than October 1, 1998.

A Fellow may not receive remuneration from another fellowship, scholarship, or similar award, or from another Federal grant or contract during the tenure of the award. Institutions may supplement without fellowship stipends, permission from the Foundation, up to a maximum of 20 percent of the Fellow's stipend. Such supplements must be in accord with established institution policies. They may be given without any requirement for duties in addition to normal fellowship activities, or it may involve

limited teaching or research duties, provided these are compatible with the approved research and study plan of the Fellow.

Prior Foundation approval is required in all cases in which an institution proposes to supplement in any amount larger than the above established guidelines. Approval will be given only for compelling reasons. It is the Fellow's responsibility to notify the Foundation of any supplement(s) in any amount as soon as the supplement(s) has received institutional approval.

It is expected that Fellows will carry out their plans of research or study as proposed in their applications. Major departures therefrom must receive prior approval by the National Science Foundation. Any change in course of study, duration of the fellowship, or fellowship institution will require approval by the National Science Foundation.

Results of research carried out by the Fellows during their PFSMETE fellowships should be made available to the public without restriction, except in matters related to national security of the United States. PFSMETE Fellows are fully responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for such findings or their interpretation.

At the completion of the PFSMETE Fellowship, Fellows are required to submit a final report (NSF Form 98A) to the NSF-PFSMETE Program Director. The report should contain the results of the Fellow's activities. This is particularly important if an extension of the Fellowship or a starter research grant is requested. The Foundation will also measure and evaluate the effectiveness and outcomes of the program at intermediate points during the PFSMETE Fellowship.

### PROGRAM EFFECTIVENESS INDICATORS

At some appropriate time, NSF will convene a meeting of the PFSMETE Fellows and their mentors to exchange ideas, to learn about the activities the Fellows will be conducting, and to discuss ways of measuring progress. This group will reconvene later to determine the effectiveness of PFSMETE activities in preparing the Fellows for leadership careers and to plan additional strategies for accomplishing program goals.

Possible indicators of program and project effectiveness that might be considered include: development of creative teaching methods, development of innovative teaching materials for new development quality concepts, of education products (e.g. refereed publications, presentations professional societies and end-users, educational technologies, statistical tools, evaluation, methodologies), and utility to the education community as evidenced by sponsored studies of school systems and evaluations of higher education programs.

### **INQUIRIES**

General inquiries regarding the PFSMETE program may be addressed to Postdoctoral Fellowships in Science Education, National Science Foundation, Suite 907N, 4201 Wilson Blvd., Arlington VA 22230. The telephone number is (703) 306-1697, fax number (703) 306-0468. Request for information via the INTERNET may be addressed to PFSMETE@nsf.gov.

Copies of this or any other NSF publication, may be obtained by writing to National Science Foundation, P.O. Box 218, Jessup, MD 20794-0218. The

PFSMETE announcement number is NSF 97-166. Electronic mail users who have access to INTERNET may order application materials by addressing requests to pubs@nsf.gov. Requests should include the NSF publication number (NSF 97-166), title, number of copies, requester's name and a complete mailing address. Applications may also be ordered by FAX (301) 953-3848 or PHONE (301) 947-2722.

### FURTHER INFORMATION RELATED TO THE PROGRAM

The PFSMETE Home Page on the Internet (http://www.ehr.nsf.gov/EHR/DGE/pfse1. htm) provides information related to the first competition of the PFSMETE program such as: a list of the 1997 awardees, brief description of their work and statistics on the applicant and awardee pool. The Home Page also provides linkages to other Postdoctoral Programs offered by NSF and includes additional information relevant to PFSMETE. The PFSMETE staff periodically updates the PFSMETE Home Page. Applicants are encouraged to access the PFSMETE Home Page for updated information that might be useful in the preparation of their applications.

### FELLOWSHIP APPLICATION FORM

National Science Foundation Postdoctoral Fellowships in Science, Mathematics, Engineering and Technology Education (PFSMETE)

Please type, if possible

Surname	Given Names	Other Names Used
SOCIAL SECURITY NO	)	
MAILING ADDRESS for	correspondence. It is imperative that y	you keep NSF informed of a current mailing address.
CURRENT POSITION		
Institution Title of Position Date this positio Source of suppor	n started tt SHIP INSTITUTION including depar	
PROPOSED MENTOR	including title	
BRIEF TITLE of your pr	oposed research	

APPLICATION FORM page 2 National Science Foundation Postdoctoral Fellowships in Science, Mathematics, Engineering and Technology Education (PFSMETE)

DOCTORAL DEGREE			
Department and Institu	ntion		
Date awarded or antic	pated date of receipt		
REFERENCES (do not use you	*		
Name	Department	Institution	Phone
Ph.D. Advisor			
2.			
3.			
EXPECTED STARTING DAT			
		month year	
Have you applied for any other for requested?If so, name of the Have you ever received an NSF	of agency or program:	·	
If yes, when	and from what program?		
TELEPHONE NUMBER(S) w	here you can be reached du	ring daytime hours until awa	rds are announced.
FAX NUMBER			
E-MAIL ADDRESS			
I have read the program annound	cement in detail and have no	oted its conditions.	
Signature of applicant			

THIS APPLICATION IS NOT COMPLETE WITHOUT YOUR SIGNATURE.

### Certifications

National Science Foundation Postdoctoral Fellowships in Science, Mathematics, Engineering and Technology Education (PFSMETE)

There are three certifications which, by law, must be made before the National Science Foundation can authorize funds for a fellowship award. These concern (1) controlled substances, (2) delinquency on Federal debt, and (3) debarment and suspension.

#### I certify that:

- 1. I will not engage in unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in the control of any activity with this fellowship award;
- 2. I am not delinquent on repayment of any Federal debt; and
- 3. To the best of my knowledge and belief,
  - a. I am not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency.
  - b. I have not within a three-year period preceding my application been convicted of or had a civil judgment rendered against me for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - c. I am not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission or any of the offenses enumerated in paragraph 3.(b) of this certification; and
  - d. I have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default.

Date	Signature

NATIONAL SCIENCE FOUNDATION NSF POSTDOCTORAL FELLOWSHIPS IN SCIENCE, MATHEMATICS, ENGINERING AND TECHNOLOGY EDUCATION (PFSMETE) 4201 WILSON BLVD., ROOM 907N ARLINGTON, VA 22230

Dear Fellow:

Please be advised that before any NSF-PFSMETE funds can be issued we need to verify that you have received your Ph.D. or that you have completed the work necessary for your doctorate. Two forms of verification are acceptable:

- 1. You may send an OFFICIAL transcript showing the date the Ph.D. was awarded; or
- 2. The Dean of the Graduate School (or other proper official at your institution) may complete this sheet by filling in information in the appropriate places below:

A)		received t	he Ph.D. degree
from	(Name of Student)		
		on	
	(Name of Institution)	(	Date)
OR			
B)		completed all the aca	demic requirements
	(Name of Student)		
for the Ph	.D. degree at	on	•
	(Name of Insti	tution)	(Date)
(Signatur	re, Dean of Graduate School and/or oth	er proper official at your inst	itution)
(Name of	Institution)		(Date)

Please return this sheet or your official transcript to the address above as soon as possible. Thank You. (Note: Do not fax, we need original signature.)

Supplementary Information

National Science Foundation

Postdoctoral Fellowships in Science, Mathematics, Engineering and Technology Education (PFSMETE)

Submit only ONE copy of this form. Leave the back of the page blank. Do not include this form with any of the other copies, as this may compromise the confidentiality of the information. Please check the appropriate answers to each questions for the applicant:

1. Is this person	
Female	
Male	
2. Is this person a	
U.S. Citizen	
Permanent Resident	
Other non-U.S. Citizen	
e e	is person's ethnic/racial status? (if more than one category applies, use the category
that most closely reflects the person's recognition i	in the community.)
A	
American Indian or Alaskan Native	
Asian	
Black, not of Hispanic Origin	
Hispanic	
Pacific Islander	
White, not of Hispanic Origin	
4. Does this person have a disability* which limits	s a major life activity?
Yes	
No	
Check here if this person does not wish to provide some or all of the above information.	
-	ly serving (or has previously served) as PI, CO-PI, or PD on any Federally funded
project.	

American Indian or Alaskan Native: A person having origins in any of the original peoples of North America, and who maintains cultural identification through affiliation or community recognition.

Asian: A person having origins in any of the original peoples of East Asia, Southeast Asia and the Indian subcontinent. This area includes, for example, China, India, Indonesia, Japan, Korea and Vietnam.

Black, not of Hispanic Origin: A person having origins in any of the black racial groups of Africa.

Hispanic: A person of Mexican, Puerto Rican, Cuban, central or South American or other Spanish culture or origin, regardless of race.

Pacific Islander: A person having origins in any of the original peoples of Hawaii; the U.S. Pacific Territories of Guam, American Samoa, and the Northern Marinas; the U.S. Trust Territory of Palau; the islands of Micronesia and Melanesia; and the Philippines.

White, not of Hispanic Origin: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

\*Disabled: A person having a physical or mental impairment that substantially limits one or more major life activities; who has a record of such impairment; or who is regarded as having such impairment.

#### WHY THIS INFORMATION IS BEING REQUESTED:

The Federal Government has a continuing commitment to monitor the operation of its review an award processes to identify and address any inequities based on gender, race, ethnicity or disability of the nominee. To gather information needed for this important task, you should submit a single copy of this form, however, submission of the requested information is not mandatory and is not a precondition of award. Any individual not wishing to provide the information should check the box provided for this purpose. (the exception is information about previous Federal support, the last question above.)

Information from this form will be retained by Federal agencies as an integral part of their Privacy Act Systems of Records in accordance with the Privacy Act of 1974. These are confidential files accessible only to appropriate Federal agency personnel and will be treated as confidential to the extent permitted by law. Data submitted will be used in accordance with criteria established by the respective Federal agency for awarding grants for research and education, and in response to Public Law 99-383 and 42 USC 1885c.

The National Science Foundation (NSF) provides awards for research and education in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for such findings or their interpretation.

The Foundation welcomes proposals on behalf of all qualified scientists and engineers, and strongly encourages women, minorities and persons with disabilities to compete fully in any of the research and research-related Programs described in this document. In accordance with Federal statutes and regulations and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program of activity receiving financial assistance from the National Science Foundation.

Facilitation Awards for Scientists and Engineers with Disabilities provides funding for special assistance or equipment to enable persons (investigators and other staff, including student research assistants) to work on an NSF project. See the FASED program announcement (NSF 91-54) or contact the FASED Coordinator in the Directorate for Education and Human Resources. The telephone number is (703) 306-1636 ext. 6865.

The National Science Foundation has TDD (Telephone Device for the Deaf) capability which enables people with hearing impairment to communicate with the Division of Human Resource Management for information relating to NSF programs, employment, or general information. This number is (703) 306-0090; for Federal Information Relay Services, 1-800-877-8339. The catalog of Federal Domestic Assistance Number is 47.076, Education and Human Resources.

Privacy Act and Public Burden Statements. The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process; to the institution the nominee, applicant or fellow is attending or is planning to attend or is employed by for the purpose of facilitating review or award decisions, or administering fellowships or awards; to government contractors, experts, volunteers and researchers as necessary to complete assigned work; and to other government agencies to coordinate programs. Information from this system may be merged with other computer files to carry out statistical studies the results of which do not identify individuals. Disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. For fellows or awardees receiving stipends directly from the government, information is transmitted to the Department of the Treasury to make payments. See Systems of Records, NSF-12, "Fellowship and Other Awards," 60 Federal Register 4449 (January 23, 1995). Submission of the information is voluntary, however, failure to provide full and complete information may reduce the possibility of your receiving an award.

The public reporting burden for the collection of information is estimated to average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to:

Gail A. McHenry Reports Clearance Officer Contracts, Policy and Oversight National Science Foundation Arlington, VA 22230

and to:

Office of Management & Budget Paperwork Reduction Project (3145-0058) Washington, DC 20503

OMB NO. 3145-0023 P.T.:22

K.W. 1013000, 1002000, 1010000, 0600000, 0400000, 0309008

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